

## MEMORANDUM

SUBJECT: Comments on the Screening Ecological Risk Assessment for Gulfco

FROM: Susan Roddy

TO: Gary Miller

DATE: September 12, 2005

I have reviewed the screening ecological risk assessment for Gulfco, and have the following comments:

1. Page 9, Section 2.2.3: It is stated in the second sentence that no compounds were measured in excess of the detection limit. Clarification is needed here in the text regarding whether the detection limits were less than the screening ecotoxicity values. If not, the contaminants would need to be carried forward from the screening ecological risk assessment.
2. Page 9: Regarding the sufficiency of data concerning whether ground water discharges to surface water pose an ecological risk, given the insufficiency of the data, this pathway should not be eliminated in this document.
3. Page 10, second paragraph: Regarding those contaminants in the second sentence, elimination should be on the basis of "essential nutrient" status and whether aluminum is not an issue given the pH for the site.
4. Page 10, second paragraph: Did the VOCs exceed ecotox screening values? If so, then, they need to be carried forward. See also page 24, Section 5.1.
5. Page 10, third paragraph: For those contaminants that were not essential nutrients, if there were no ecotox screening values, they should not be eliminated, but carried forward.
6. Page 11, first complete paragraph: The latter part of the first sentence beginning with the word "if" should be eliminated.
7. Page 12, Section 2.5: It does not appear from this Section that an informal consultation with USFWS was done (as is needed).
8. Page 13: Regarding the assessment endpoints, there was no discussion of reptiles and amphibians. Even if they could only be addressed qualitatively, if there is a potentially complete exposure pathway, they should be listed (See also page 14). Also, clarification should be provided for biota included as base of the food chain receptors.

9. Page 13, Section 2.6.1: Regarding the bullets, the words “abundance, diversity, and productivity” should be replaced with the words “survival, growth, and reproduction”. See also the bullets on page 14.
10. Page 15: The measurement endpoint discussion should include mention of comparison of maximum exposure point concentrations in soil and sediment to screening ecotoxicity values.
11. Sections 2, 3, and 4.2: It is recalled that EPA Region 6 called for limiting the screening ecological risk assessment to comparison of media concentrations to ecotoxicity values based on direct contact toxicity, and regarding food chain effects, to carry a contaminant forward to the baseline ecological risk assessment if it was detected and identified as bioaccumulative (using TCEQ’s list of bioaccumulative contaminants). Thus, for this document, any discussion of food chain modeling (using the algorithm for calculating doses, and using exposure parameters such as area use factors, ingestion rates, and body weights) should be eliminated and postponed until the next steps in the process. It is acceptable however to identify complete exposure pathways, and to have a screening level preliminary problem formulation. Thus, regarding this document, TCEQ PCLs should only be those for direct contact toxicity, not for use with dose estimates for upper trophic level organisms.
12. Pages 16-19, and Tables 7 and 8: The selection of surrogates representing guilds is more an appropriate level of detail for the next step in the EPA ERAGS process, the problem formulation for the baseline ecological risk assessment, than for the preliminary problem formulation for the screening ecological risk assessment in this document. Thus, this information can be eliminated in this document, and presented later (perhaps modified) for the problem formulation for the baseline ecological risk assessment.
13. Page 22, Section 4.1: Discussion of TRVs in this document should not include discussion of LOAELs as LOAELs are inappropriate for use in a screening ecological risk assessment.
14. Page 24, Section 5.1, and page 25, Section 5.3: It should be clarified that for this ecological risk assessment, contaminants were not eliminated based on comparisons with background concentration.